



Water-Data Report 2008

01403400 GREEN BROOK AT SEELEY MILLS, NJ

RARITAN RIVER BASIN

LOCATION.--Lat 40°39'58", long 74°24'14" referenced to North American Datum of 1983, Watchung Borough, Somerset County, NJ, Hydrologic Unit 02030105, on right bank at Seeley Mills, 250 ft downstream from Blue Brook, 300 ft downstream from bridge on New Providence (Diamond Hill) Road, and 0.5 mi northwest of Scotch Plains.

DRAINAGE AREA.--6.23 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Annual maximum, water years 1927-38 (in files of Union County Park Commission), 1958-68 (in files of Union County Park Commission), 1969-79. Fragmentary records 1944-53 (in the files of the U.S. Geological Survey). Occasional low-flow measurements, water years 1959-64, 1969. Continuous-record gaging station, June 1979 to current year.

REVISED RECORDS.--WDR NJ-81-1:1979(M). WDR NJ-87-1:1971(M), 1973(M), 1975(M).

GAGE.--Water-stage recorder. Datum of gage is 184.44 ft above NGVD of 1929. From 1944 to 1953, water-stage recorder and masonry dam about 400 ft downstream, above lower Seeley Mills dam at different datum. From July 1969 to May 1979, crest-stage gage about 450 ft downstream below lower Seeley Mills dam (washed out May 29, 1968) at different datum.

REMARKS.--Records fair, except for estimated daily discharges and daily discharges below 3.0 ft³/s from Jun 6 to Sep 30, which are poor. Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 23, 1938 reached an elevation of 196.5 ft (New Jersey Geological Survey datum; above lower Seeley Mills dam), discharge, 5,840 ft³/s (computed by State Water Policy Commission).

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 27	0830	251	2.61
Feb 13	1415	297	2.75
Mar 8	1545	347	2.90
Sep 6	2045	*775	*3.88

Water-Data Report 2008

01403400 GREEN BROOK AT SEELEY MILLS, NJ—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES
[*e*, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1.1	1.4	2.6	13	43	10	11	8.7	6.4	2.0	2.1	1.8
2	1.1	1.1	2.5	11	26	10	10	7.7	4.1	2.0	6.5	1.8
3	1.2	1.0	9.4	8.3	12	9.2	7.6	7.1	2.9	1.9	2.2	1.8
4	1.2	1.0	5.8	6.9	11	10	13	6.8	13	1.9	2.1	1.8
5	1.2	1.0	4.5	6.6	11	29	11	6.0	6.4	5.1	2.1	1.8
6	1.1	4.9	3.8	6.6	10	13	9.7	5.4	4.4	2.1	2.0	132
7	1.1	1.7	3.4	6.6	10	22	8.4	4.9	e3.0	2.0	2.1	45
8	1.0	1.3	3.2	6.3	9.2	96	7.7	4.9	4.3	2.0	2.3	8.6
9	3.1	1.5	3.7	6.2	7.9	40	7.2	32	3.5	2.0	2.0	12
10	5.0	2.1	9.1	5.7	7.7	19	7.1	26	11	2.0	2.0	4.2
11	11	1.4	6.9	23	6.8	16	6.8	12	15	1.9	2.1	2.6
12	6.8	1.2	5.4	12	6.0	14	15	15	3.7	1.9	2.1	4.6
13	3.0	2.3	17	11	127	11	9.5	11	2.4	1.9	2.0	2.9
14	2.3	1.4	11	12	41	11	7.8	8.7	6.4	16	2.0	2.5
15	2.1	5.7	8.9	11	19	11	7.1	7.2	20	2.0	22	2.3
16	2.0	3.5	9.0	10	13	10	6.8	19	5.5	2.0	2.8	2.1
17	2.0	2.3	8.8	9.3	13	8.8	6.4	22	3.6	2.0	2.0	2.1
18	1.9	2.1	7.1	23	42	7.9	5.9	13	2.5	1.9	1.9	2.0
19	4.8	5.0	5.7	12	25	33	5.5	12	2.3	1.9	1.9	2.0
20	5.6	5.4	5.7	11	13	39	5.1	16	2.1	1.9	1.9	2.0
21	2.9	4.0	5.7	8.7	11	18	5.3	13	2.1	2.3	1.9	2.0
22	2.6	3.1	5.6	7.2	11	13	5.0	11	2.0	1.9	1.9	1.8
23	2.5	2.4	32	7.1	11	11	4.6	8.7	2.1	34	1.9	1.8
24	3.5	2.0	20	6.6	9.9	11	4.3	7.3	2.1	44	1.9	1.8
25	5.3	2.0	11	5.8	9.4	9.8	3.8	6.5	2.0	4.9	1.8	1.8
26	4.7	19	10	5.4	12	9.3	7.0	5.8	2.0	2.3	1.8	23
27	52	8.4	13	5.3	17	9.0	6.6	5.9	2.0	10	1.8	2.7
28	8.9	5.1	11	5.1	12	8.4	32	5.0	2.0	3.0	1.8	4.7
29	4.2	3.8	34	5.0	9.3	7.7	22	4.0	2.1	2.3	1.8	2.8
30	2.5	3.2	13	6.6	---	7.2	11	3.4	2.1	2.2	4.9	2.5
31	1.8	---	20	6.7	---	7.5	---	7.7	---	2.1	1.9	---
Total	149.5	100.3	308.8	281.0	556.2	531.8	270.2	323.7	143.0	165.4	89.5	280.8
Mean	4.82	3.34	9.96	9.06	19.2	17.2	9.01	10.4	4.77	5.34	2.89	9.36
Max	52	19	34	23	127	96	32	32	20	44	22	132
Min	1.0	1.0	2.5	5.0	6.0	7.2	3.8	3.4	2.0	1.9	1.8	1.8
Cfsm	0.77	0.54	1.60	1.45	3.08	2.75	1.45	1.68	0.77	0.86	0.46	1.50
In.	0.89	0.60	1.84	1.68	3.32	3.18	1.61	1.93	0.85	0.99	0.53	1.68

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	7.75	9.34	12.0	11.8	11.5	16.3	17.5	11.7	7.60	6.30	4.71	8.50
Max	31.9	22.4	46.9	27.1	22.3	40.9	47.1	42.0	28.3	18.9	16.1	97.1
(WY)	(1997)	(1986)	(1984)	(1996)	(1998)	(1994)	(2007)	(1989)	(2003)	(1984)	(1990)	(1999)
Min	1.21	1.48	1.62	1.67	2.24	4.50	3.50	2.44	0.35	0.32	1.16	1.46
(WY)	(1995)	(1999)	(1999)	(1981)	(2002)	(2006)	(1985)	(1999)	(1999)	(1999)	(2005)	(2007)

01403400 GREEN BROOK AT SEELEY MILLS, NJ—Continued**SUMMARY STATISTICS**

	Calendar Year 2007	Water Year 2008	Water Years 1979 - 2008
Annual total	3,910.55	3,200.2	
Annual mean	10.7	8.74	10.4
Highest annual mean			18.2
Lowest annual mean			3.25
Highest daily mean	461	Apr 15	Sep 6
Lowest daily mean	0.79	Sep 9	Oct 8
Annual seven-day minimum	0.96	Sep 4	Oct 2
Maximum peak flow		775	Sep 6
Maximum peak stage		3.88	Sep 6
Instantaneous low flow		0.93	Oct 8
Annual runoff (cfsm)	1.72	1.40	1.67
Annual runoff (inches)	23.35	19.11	22.70
10 percent exceeds	18	17	21
50 percent exceeds	4.8	5.6	4.8
90 percent exceeds	1.2	1.9	1.4

a From rating curve extended above 600 ft³/s on basis of slope area measurement of peak flow.

b Site and datum then in use.

